

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q62634

Kazuaki KINYOU

Appln. No.: 09/758,203

Group Art Unit: 2854

Confirmation No.: 8552

Examiner: Kevin D. WILLIAMS

Filed: January 12, 2001

For: RECORDING APPARATUS AND METHOD THEREOF
AND REMOVING CLAW THEREFOR

SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an original and two copies of Appellant's Brief on Appeal. A check for the statutory fee of \$330.00 is attached. The USPTO is directed and authorized to charge all additional required fees (except the Issue/Publication Fees) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is also attached.

Respectfully submitted,

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WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: July 23, 2004



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APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. §1.192

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Sir:

In accordance with the provisions of 37 C.F.R. §1.192, Appellant submits the following:

I. REAL PARTY IN INTEREST

The real party in interest is Fuji Photo Film Co., Ltd., the owner by assignment of all rights, title and interest in the present application.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences with respect to the present application.

III. STATUS OF CLAIMS

Claims 1-7 are pending in this application, all of which stand finally rejected and are hereby appealed.

IV. STATUS OF AMENDMENTS

An Amendment under 37 C.F.R. §1.111, amending claims 1, 3 and 7, was filed on October 7, 2002. An Amendment under 37 C.F.R. §1.116, amending claims 1, 2, 4, 5, and 7, was filed on May 2, 2003, and was entered after filing a Request for Continued Examination under 35 U.S.C. §1.114 on June 4, 2003. An Amendment under 37 C.F.R. §1.111 was filed on October 16, 2003, amending claims 1, 2, 4, 5, and 7. An Amendment Under 37 C.F.R. §1.116 was filed on March 24, 2004, amending claims 1, 2, 4, 5, and 7. The Examiner issued an Advisory Action on April 22, 2004, entering the March 24, 2004, Amendment to claims 1, 2, 4, 5, and 7.

V. SUMMARY OF THE INVENTION

The present invention as defined by the pending claims includes a removing means for removing a recording medium from a medium fixing member (as in claim 1); and a method utilizing a recording apparatus having a removing claw, as in claim 7. By way of background, with reference to Figures 4(a)-4(e), removing claws have been used in the art to remove sheets of material 10 and 11 from a recording drum 34. (See page 6, lines 2-9.)

Figures 1(a)-1(c) represent an exemplary embodiment of a removing claw of the present invention. Figure 1(a) is a side view showing a side face that extends longitudinally along the removing claw. (See page 21, lines 8-10.) Figure 1(b) is a top view showing a top face of the removing claw, which is operative to contact a sheet being removed. (*Id.*) Figure 1(c) is a sectional view taken along the line I-I of Figure 1(a). (*Id.*)

As shown in Figure 1(a), a height of the removing claw is reduced towards a tip. (See page 21, lines 23-24.) As shown in Figure 1(c), both ends of an upper side of the removing claw are rounded. (See page 21, lines 24-29.) Between the rounded portions, a non-curvilinear portion is provided, which extends along the length W1, as shown in Figure 1(c). The rounded upper ends of the removing claw include a radius of 1 mm, for example. As will be appreciated, the rounded portions extend down the slope of the tip along the side faces, as represented by the cross-sectional view shown in Figure 1(c), which is taken along the lines I-I of Figure 1(a).

Because of the rounded upper portions of the removing claw, a larger area (when compared to the prior art) of the removing claw will contact a sheet that is being removed. (See page 21, lines 26-29.) Accordingly, pressure applied to the face of the removing claw is reduced. (*Id.*) Further, the rounded portions prevent a toner sheet, for example, from being shaved when the sheet is removed. (See page 22, lines 26-28.)

In an exemplary embodiment, the rounded portions have a radius of curvature of $r = 1$ (mm) or more, and an upper face of the removing claw is subjected to a face pressure of 1 (KPa)

or less received from a sheet that is being removed. (See page 23, lines 14-18.) The specifically claimed dimensions contribute to reducing damage to the sheet upon removal. (See page 23, line 14, to page 24, line 14.)

VI. ISSUE

- Whether claims 1-7 should stand rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's admitted prior art ("AAPA") in view of U.S. Patent No. 4,447,054 to Sone ("Sone").

VII. GROUPING OF CLAIMS

The claims of the present application may be considered in two groups that are separately patentable and, therefore, do not stand or fall together.

The grouping of the claims is as follows:

Group 1: Claims 1, 3, 4, 6/4 and 7 stand or fall together.

Group 2: Dependent claims 2, 5 and 6/5¹ stand or fall together (but do so separately from claims 1, 3, 4, 6 and 7) because of their uniquely claimed dimensions including a radius of

¹ Claim 6 also stands or falls with claim 5 because of its multiple dependency.

a face pressure of 1 (KPa) or less from the recording medium being removed. See also the reasons as set forth below in Section VIII of this Brief.

VIII. ARGUMENT

A. *Whether, under 35 U.S.C. §103(a), the combination of the applied references discloses each of the claimed features.*

I. **One would not have been taught the claimed features based on the teachings or suggestions of AAPA and Sone.**

The Examiner applies AAPA for a majority of the claimed features while relying on Figures 2, 3, 4, 5 and 7 of the present specification. (See Office Action dated December 24, 2003, Section 6.) The Examiner acknowledges that AAPA fails to “teach [1] portions joining the upper face and the side faces respectively being rounded, and [2] extending along the length of the side faces, [3] a non-curvilinear portion being provided between the rounded portions, and [4] the rounded portion having a radius of curvature of $r=1$ or more, and [5] an upper face of the tip having a face pressure of 1 KPa or less received from the recording medium being removed.” (See first full paragraph on page 4 of the December 24, 2003 Office Action.) Thus, the Examiner turns to Sone for an alleged teaching of these features.

Figures 6a and 6b are cited in Sone for alleged support of the rejection. In doing so, the Examiner attached an Appendix to the December 24, 2003 Office Action, a copy of which is

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attached to this Brief for the Board's convenience (see Appendix A). Sone discloses a pawl 1 for peeling a sheet from a roll 9, as shown in Figure 3. The relied upon Figures 6a and 6b are disclosed as being embodiments of the pawl 1 formed to have "an arcuate or U-shaped section." (See col. 3, lines 14-16 of Sone.) It is clear that the portion of Figures 6a and 6b that contact the material being removed is the "arrow head" portion on the right sides of Figure 6a and 6b. The rounded portion and the three-sided portion to the left of Figures 6a and 6b, respectively, would be attached to the supporting member 3, as shown in Figures 2 and 3. In other words, the position of the pawl in Figures 6a and 6b would need to be flipped upside-down, so that the sides not enclosed by the rear curved section or the three side walls would fit over the supporting member 3. The sheet 8 being removed would then be pried up by the arrow-head portion of the pawl 1.

AAPA, as shown in Figures 7(a)-7(c) of the specification, has a side portion as illustrated in Figure 7(a), and a top portion as illustrated in Figure 7(b). The question now is what one skilled in the art would have done with the teachings of Figures 6a and 6b of Sone and Figures 7(a)-7(c) of the present specification. At best, one would have perhaps provided an arrow-head configuration to the end of the claw 64 shown in AAPA. For example, when looking at the top view shown in Figure 7(b), the end of the tip portion to the left would have the triangular shape of Sone if the references were combined.

However, and importantly, one would not have provided rounded portions joining the upper face (shown as a horizontal middle portion in Figure 7(b)) and the side faces (sloping sides

shown to the left in Figure 7(a)), such that the rounded portions extend along the length of the side faces. The Examiner's misinterpretation appears to stem from his application of the sections of Figure 6b that he labels as "upper face" and "side face." The alleged "upper face" and "side face" as labeled by the Examiner in Figure 6b do not correspond to the upper face and side face of AAPA. The upper face of AAPA is the upper sloping portion, the surface of which can be seen in the middle of Figure 7(b). The side face of AAPA is the sloping side portion to the left in Figure 7(a).

It appears that the Examiner is attempting to teach rounding the corners of the claw in Figure 7(a) that connect the a) non-sloping top section (where the lead line for reference numeral 64 points), with b) the side portion, also to the right of Figure 7(a). However, this would not teach the features of claim 1 because such a rounded portion would not extend along the length of the side faces when the side faces are described as having a height which is reduced toward a tip. This also would not have taught the features of method claim 7 for similar reasons due to claim 7 requiring the claimed features to provide its functional benefits.

The face of Figure 6b in Sone that first makes contact with a sheet does not have the rounded portions; instead, it is the rear portion of the pawl in Figure 6b that has the rounded portion, but these do not include the sides having the height that is reduced. Figure 6a is also deficient because it additionally fails to teach a non-curvilinear portion between the rounded portions. In effect, there is no teaching in Sone that would have motivated one to apply any rounded portions of Sone to AAPA in a manner that would teach or suggest the invention.

Moreover, Sone does not even teach that its rounded portions contact a sheet. In effect, there is no teaching or suggestion at all in Sone that the applied rounded portions of Figures 6a and 6b would provide any of the advantages of the present invention. Instead, these figures are only described on three lines in Sone. (See col. 3, lines 14-16 of Sone). None of these three lines would have motivated one to selectively apply any rounded portion of Figures 6a and 6b to AAPA. Any such combination is based on impermissible hindsight. The rounded aspects of Sone, besides not correlating to the claimed rounded portions, appear to be used only as a way of affixing the pawl 1 to the supporting member 3 in a way that would not benefit AAPA.

Accordingly, the combination of AAPA and Sone would have failed to teach or suggest all of the claimed features, and the rejection of claims 1, 4 and 7 under 35 U.S.C. §103(a) must be reversed.

II. Dependent claims 3 and 6.

Dependent claims 3 and 6 also are patentable over the applied references, at least by virtue of their respective dependencies on independent claims 1 and 4.

III. It is not obvious to modify a reference unless the prior art also suggests the desirability of the modification.

The features of claims 2 and 5 would also not have been taught by the combination of AAPA and Sone. The features of claims 2 and 5 provide benefits not provided by the applied art by preventing damage to a sheet being removed. (See, for example, page 23, line 14, to page 24,

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line 14 of the present specification.) The Examiner is not able to set forth any teaching or suggestion in the prior art and must rely on asserting that “it is obvious to modify a particular feature of a device to a specific degree according to the particular operation at hand.”

The Examiner’s assertion is not the test for obviousness. In contradistinction, the mere fact that a reference can be modified does not make the resultant modification obvious unless the prior art also suggests the desirability of the modifications. See *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). None of the prior art references teaches or suggests having the claimed rounded feature with a curvature of $r = 1$ (mm) or more and an upper face of a tip with a face pressure of 1 (KPa) or less received from a recording medium being removed. Such features provide benefits that are neither taught nor suggested by the applied art.

In addition, it appears that the Examiner asserts that the features of claims 2 and 5 could have been obtained through experimentation. However, “[a] particular parameter must first be recognized as a result-effective variable...before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation.” MPEP §2144.05(b). The grounds of rejection do not address this threshold inquiry at all. Indeed, none of the art being relied upon indicates that a particular radius and face pressure are recognized as having an effect. Moreover, the section of the MPEP cited by the Examiner (§2144.05(II)(A)) describes optimization of “concentration or temperature” - neither of which are presently recited.

Accordingly, AAPA and Sone are not properly combinable in a way that would have taught or suggested the features of claims 2 and 5, and the rejection thereof under 35 U.S.C. §103(a) must be reversed. Furthermore, claim 6, as it depends from claim 5, is allowable at least by virtue of its dependency thereon.

IX. CONCLUSION

For at least the foregoing reasons, Appellant respectfully submits that one of ordinary skill in the art would not have been motivated to combine the teachings of AAPA and Sone so as to derive the presently claimed features. Moreover, it is also respectfully submitted that neither AAPA, nor Sone, nor any combination of these references teaches or suggests each feature recited in the claims.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §§1.192(a) and 1.17(c), please charge said fee to our Deposit Account No. 19-4880.

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The USPTO is directed and authorized to charge all required fees (except the Issue/Publication Fees) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE

23373

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Date: July 23, 2004

APPENDIX

CLAIMS 1-7 ON APPEAL:

1. A recording apparatus comprising:

removing means for removing a recording medium from the medium fixing member, said recording medium being fixed to a medium fixing member such that an active surface of the recording medium is facing to the medium fixing member,

wherein the removing means has,

a removing claw, the removing claw having an upper face that is operative to contact the recording medium;

side faces, the side faces respectively having a height which is reduced toward a tip such that portions joining the upper face and the side faces respectively are rounded to form rounded portions which extend along the length of the side faces; and

a non-curvilinear portion provided between the rounded portions.

2. The recording apparatus according to claim 1, wherein the rounded portions have a radius of curvature of $r = 1$ (mm) or more and the upper face has a face pressure of 1 (KPa) or less received from the recording medium being removed.

3. The recording apparatus according to claim 1, wherein the recording medium comprises a toner and an image receiving sheet, the toner sheet is of a thin film transfer type.

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4. A removing claw for removing a toner sheet or an image receiving sheet from a medium fixing member, the removing claw comprising:

an upper face that is operative to contact the recording medium;

side faces, the side faces respectively having a height that is reduced toward a tip such that portions joining the upper face and the side faces respectively are rounded to form rounded portions which extend along the length of the side faces; and

a non-curvilinear portion provided between the rounded portions.

5. The removing claw according to claim 4, wherein the rounded portions have a radius of curvature of $r = 1$ (mm) or more and the upper face has a face pressure of 1 (KPa) or less received from the recording medium being removed.

6. The removing claw according to claim 4 or 5, wherein the toner sheet is of a thin film transfer type.

7. A recording method utilizing a recording apparatus having a removing claw comprising:

fixing the image receiving sheet onto the medium fixing member, said image receiving sheet having an image receiving layer to receive an image of a recorded image;

fixing the toner sheet onto the image receiving sheet; and

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removing the toner sheet or the image receiving sheet from the medium fixing member using a removing claw, the removing claw having,
an upper face that is operative to contact the recording medium;
side faces, the side faces respectively having a height which is reduced toward a tip such that portions joining the upper face and the side faces respectively are rounded to form rounded portions which extend along the length of the side faces; and
a non-curvilinear portion provided between the rounded portions, such that the toner sheet or the image receiving sheet applies a pressure to an the upper face of the removing claw including the rounded portions upon removal.

APPENDIX A

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FIG. 4a



FIG. 4b

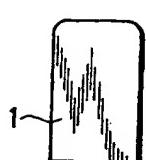


FIG. 5a

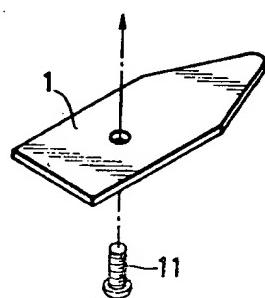


FIG. 5b

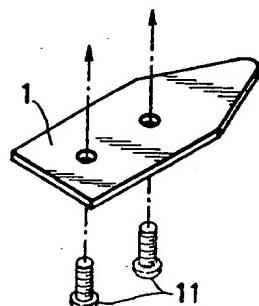


FIG. 6a

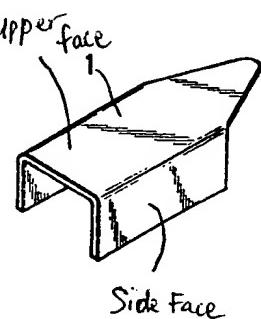
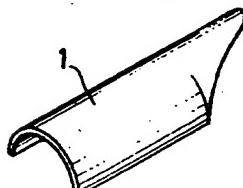


FIG. 6b